



Initial logarithmic Lie algebras of hypersurface singularities

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| Résumé en anglais | <p>We introduce a Lie algebra of initial terms of logarithmic vector fields along a hypersurface singularity. Extending the formal structure theorem in [GS06, Thm. 5.4], we show that the completely reducible part of its linear projection lifts formally to a linear Lie algebra of logarithmic vector fields. For quasihomogeneous singularities, we prove convergence of this linearization. We relate our construction to the work of Hauser and Müller [HM86, HM89] on Levi subgroups of automorphism groups of singularities, which proves convergence even for algebraic singularities. Based on the initial Lie algebra, we introduce a notion of reductive hypersurface singularity and show that any reductive free divisor is linear. As an application, we describe a lower bound for the dimension of hypersurface singularities in terms of the semisimple part of their initial Lie algebra.</p> |
| URL de la notice | http://okina.univ-angers.fr/publications/ua134 [7] |
| Lien vers le document | http://arxiv.org/abs/0807.1916 [8] |

Liens

- [1] <http://okina.univ-angers.fr/jeanmichel.granger/publications>
- [2] [http://okina.univ-angers.fr/publications?f\[author\]=376](http://okina.univ-angers.fr/publications?f[author]=376)
- [3] [http://okina.univ-angers.fr/publications?f\[keyword\]=787](http://okina.univ-angers.fr/publications?f[keyword]=787)
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